

College Event Recommendation System using Log based Count Method

Ankita Gawade¹, Neha Gavande², Omkar More³, Sneha Bendale⁴

^{1,2,3}Student, Department of Computer Engineering, Terna Engineering College, Maharashtra, India

⁴Professor, Department of Computer Engineering, Terna Engineering College, Maharashtra,, India

Abstract - In recent years, the volume of data present on the internet has grown exponentially. The evaluation and analysis of such data and/or the extraction of information is difficult due to its huge volume. As a solution to this problem, an intelligent event Recommendation System can be used in such cases. A web application is created for "Event Recommendation System". The collaborative and content-based recommendation system is proposed that provides students a common and user-friendly platform for participating in different events. The paper discuss the implementation and methodology of the recommendation system. Overall workflow of the system is discussed. Students would be recommended events on the basis of their pre-filled priorities and patterns in which other students have taken part in several events in and around their colleges.

Key Words: Recommendation System, Content based filtering, collaborative filtering, hybrid filtering, log, count.

1. INTRODUCTION

A recommendation system is used in many commercial applications and it is an information filtering system which is used to predict the rating and/or preference given to users. The proposed system will predict events, seminars, and workshops for students. This web-based application will help the students by recommending them the events of their interests, and event organizers to create and access their event database more efficiently and smoothly.

The website will provide all the information about ongoing events, the deadlines to register for them, upcoming events and also expired events. The event organizers will have easy to use applications for publicity and handling the event and the students interested in registering for their events will have a handy website to apply and a recommendation based system to prevent excessive searching for the events of their interests.

The system gives access to head of the department to know the no of student who have participated in the particular event this makes easy to manage the students as well as makes easy for the arrangements of events. Due to heavy number of students system have segregated it to different domains and it is managed by domain specific admins. Also, this event recommendation system provides students and the event coordinators to keep a check on payments

transactions. This system also takes feedback and reviews for events. The website makes it very easy for students to know about ongoing events, past events, and future events.

2. LITERATURE SURVEY

[1]A Recommendation System that uses both collaborative and content based filtering is stated. Collaborative based technique uses the recommendation of all users to recommend and content based technique uses content of users like, previous history or searches of users to recommend. Hybrid filtering is a combination or mixture of two or more methods.

[2]Item-based Collaborative filtering (IBCF) and User-based Collaborative Filtering (UBCF) are applied in the recommendation system. Item-based collaborative filtering technique is used to estimate the products as it computes the similarity amongst the products and recommends them. User based collaborative filtering technique is used to estimate or predict the products which are related to interests and behavior of other users related to the customer.

[3]The Recommendation system that generates a real time recommendation for new web users. The prediction is generated on the basis of the ratings given previously by the users for the items. It will help in prediction of the user rating for those ratings that are not given. Then on the basis of this predicted rating, the recommendation will generate as per the highest ranking given for the predicted rating.

[4]E-commerce sites recommend products which are most likely to be interesting to users by analyzing their registered user's characteristics and interests, as well as the user's previous online behavior, such as the type of products purchased, websites frequently visited, and evaluations on products and services.

[5]Two types of approaches: In the online experiment they try an algorithm and it has to collect user opinion on the quality of predictions made by a given method. In the offline experiments you can remove some citations from the test dataset and then attempt to predict those missing citations, or by giving the small part of the cluster and then by prediction, try to find other part.

[6] A Novel Recommendation System to Match College Events and Groups to Students: Creating the initial user model for each new user based on keywords from the user. Updating the user model based on user history (negative and positive items). Recommending some new matched items to the user based on his/her model.

[7] Online Study and Recommendation System: We want to add detailed information like complexity, student satisfaction, student reviews and related courses. All the attributes are important for students to make their choices and they are essential to the recommendation system.

3. METHODOLOGY

Methodology is divided into four parts as follows:

3.1 Overview of the System

The College Event Recommendation System has 3 entities namely Admin, Head of the Domain (HOD)/ Domain Admin, and Student.

3.2.1 Admin Process

Admin Login: - Admin login into the system using username and password. After successful login, admin can access the admin panel.

Dashboard: - On this window all the recent event's images will appear and after clicking on image information regarding the event will be displayed.

Domain Specific Admin: - Admin can manage domain specific admin into the system.

Manage Students: - Admin can manage year specific students into the application. Once the student is added, the system will send login credentials to the students email id.

Manage Domain: - Different Domains like Cultural, Sports, Technical, Traditional are there. Admin can add or delete these domains.

Manage Departments: - Admin can edit or delete different Departments like Information Technology, Computer, Mechanical, Electronics, Mechatronics, Civil, Electronics and Telecommunication, etc.

Manage Events: - Admin can manage Domain Specific events into the system. Admin can specify Event name, Description, from date, to Date etc.

View Interested Students List: - Admin can view the list of the students who register for the event. Admin can filter Students list on the basis of domain.

Receive payment notification: - Admin can receive event registration payment and send the notification mail about the registration confirmation.

Year and Domain Specific Filters: - Admin can filter year and domain specific students who register for the events.

Search Event: - Admin can search for any event from Event Specific Filter.

Edit Student Profile: - Admin can edit Students account information if required.

Manage Reviews and Feedback: - Admin is able to view and delete the Reviews and Ratings given by students to the events and System.

3.2.2 Domain Admin Process

Dashboard, Manage Students, Year Specific Filters, Domain Specific Filters, Search Event, Edit Student Profile, Manage Reviews, Manage Feedback modules are same as Admin Process .

Domain Admin login: After successful login, admin can access the HOD (Head of the Domain) admin panel.

Manage Events: - Admin can manage Domain Specific events into the system. Admin can specify Event name, Description, from date, to Date etc.

Event Registrations: - Admin can view the list of the students who register for the event. Admin can filter Students list on the basis of domain, year.

Receive payment notification: - Admin can receive event registration payment and send the notification mail about the registration confirmation.

3.2.3 Student Process

Login: - Student login into the system using provided username and password. After successful login students can access the application.

Dashboard: - On this window all the recent event's images will appear and after clicking on image information regarding the event will be displayed.

Edit Profile: - Students can edit their profile by updating contact no, Email Id, Address, choice of interest. Etc.

View Events: - Students can view the list of the events added by the respective domain specific admin. Students can view all the information placed by the admin.

Register for Event: - Students can register for an event.

Most interested events from the students: - System will also suggest mostly register events by students, which will help students to select the events from the list.

Student review and rating for event: - students can give event related reviews and rating, which will help the system to suggest the best event to the students.

Student Feedback for system: - Students can give reviews and ratings for the system which will help system developers to make required changes to increase the use of the system.

3.2 Algorithm for Recommendation

Step1: Start.

Step2: Check whether the user has registered or not.

Step3: If not registered then first register and then login.

Step 4: If the user is new then the user should register for minimum 1 Event.

Step 5: The System will suggest the Event with highest domain count.

Step 6: System will also suggest most viewed events from the domain.

Step 7: Register for Event.

Step 8: Increment domain count of that Event Domain.

Step 9: Notification of the payment.

Step 10: End.

3.3 Recommendation methods

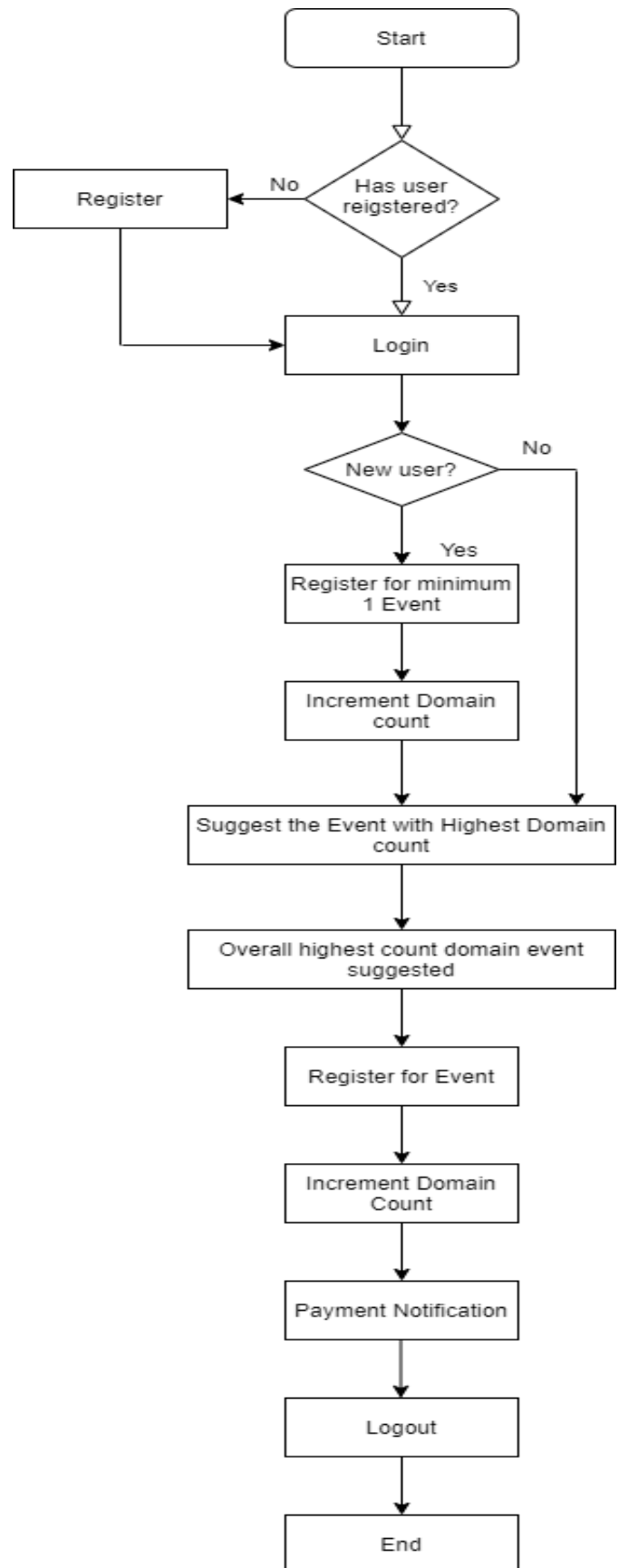
3.3.1 Content - based Recommendation

In a content based recommendation the student's registration history is used. And based on that, Maximum Domain Count the top five events are suggested to the user of that Domain. Log records and count of domains is used.

3.3.2 Collaborative - based Recommendation

In a collaborative system recommendation the overall popular events are recommended to the student. For this Average Rating is counted for each event and the top five events with the highest rating are suggested to the student using log records.

3.4. Flowchart of the System



4. RESULTS

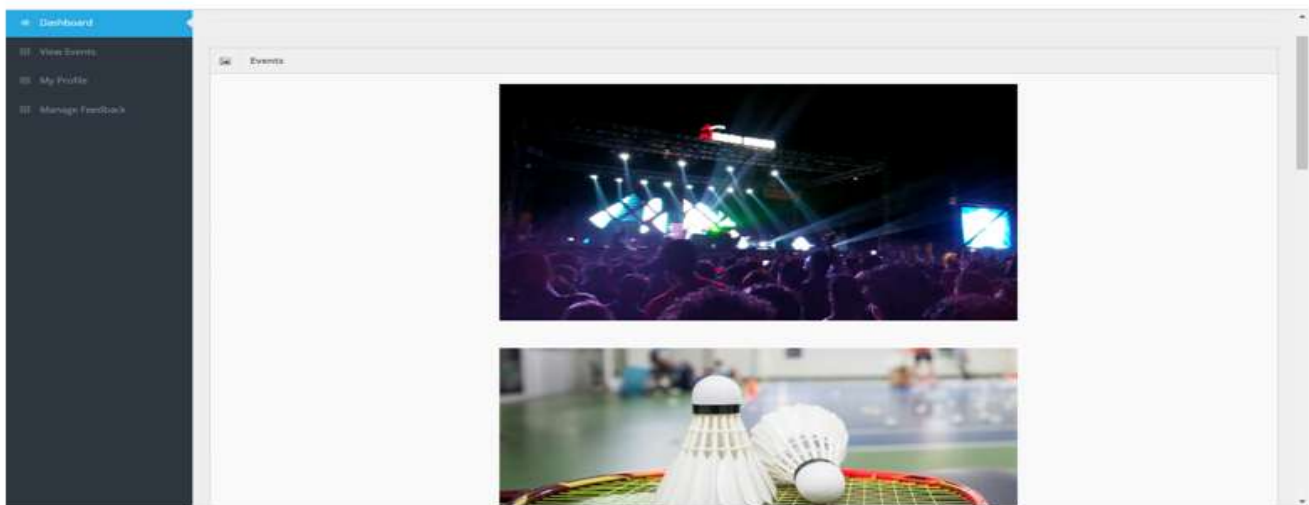


Fig. 1 Dashboard for Admin, Domain Admin, and Students

Dashboard | All Events List


Id	Event Name	StartDate	EndDate	Domain			
1	EDM Night	05-01-2020	05-01-2020	Traditional		Edit	Delete
2	Badminton	06-02-2020	08-02-2020	Sports		Edit	Delete
3	Cricket	05-02-2020	07-02-2020	Sports		Edit	Delete
4	Robotics Workshop	20-02-2020	21-02-2020	Technical		Edit	Delete
5	Machine Learning Seminar	06-02-2020	12-02-2020	Technical		Edit	Delete
6	Football League	06-02-2020	08-02-2020	Sports		Edit	Delete

Fig. 2 All Events List

Recommended Events For You

Id	Event Name	StartDate	EndDate	Domain				
2	Badminton	06-02-2020	08-02-2020	Sports		View	Register	Reviews
6	Football League	06-02-2020	08-02-2020	Sports		View	Register	Reviews

Popular Events

Id	Event Name	StartDate	EndDate	Domain				
1	EDM Night	05-01-2020	05-01-2020	Traditional		View	Register	Reviews

Fig. 3 Collaborative and Content based Recommendation for students

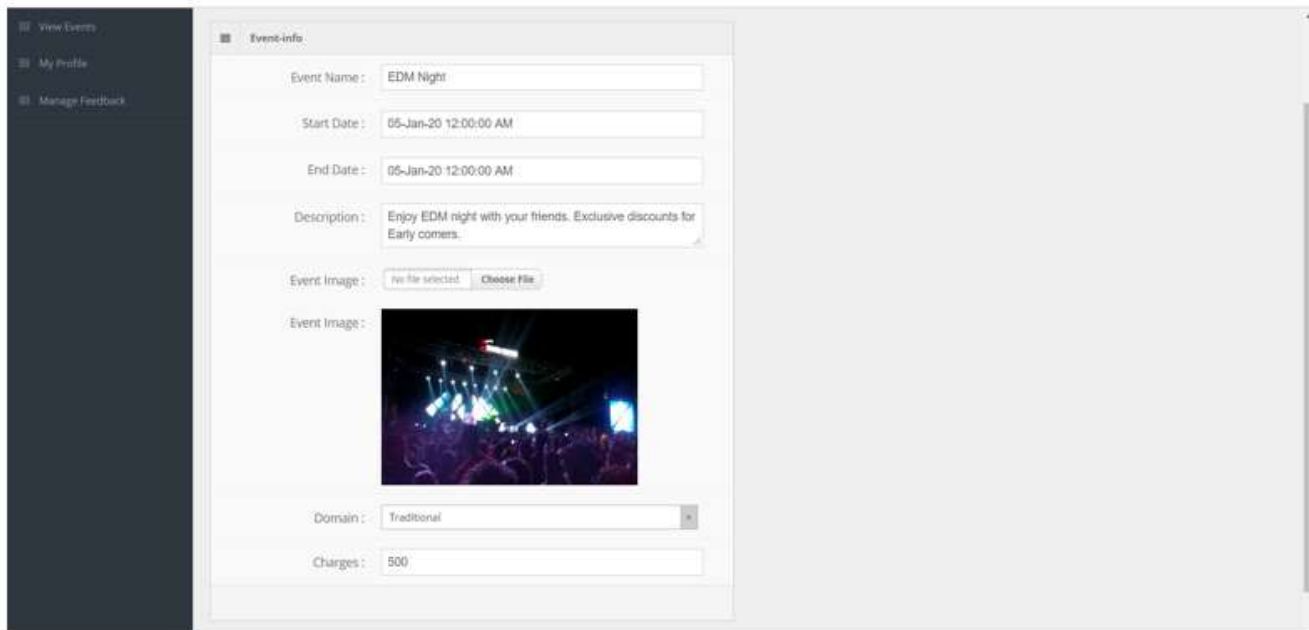


Fig. 4 Description/Information of an Event

5. CONCLUSION

A Recommendation System is implemented using Content based and Collaborative based techniques. Log based Count Approach is used for Recommendation. A College Event Recommendation System that recommends the student events based on their interest and also the most popular events are suggested. The System is beneficial for both students as well as the event manager.

REFERENCES

- [1] Mehmet Kayaalp TOBB ETU, Turkey, Tansel Zzyer, Sibel Tariyan Zzyer. A Collaborative and Content Based Event Recommendation System Integrated With Data Collection Scrapers and Services at a Social Networking Site.
- [2] Farhan Hassan Khan NUST, Saba Bashir NUST. Collaborative Filtering based Online Recommendation Systems.
- [3] Anupama Patel, Dr. Santosh K. Vishwakarma. A Review on: Designing a Recommender System Using Sequential Logs
- [4] Marco Gori, Augusto Pucci. Research Paper Recommender Systems: A Random-Walk Based.
- [5] GUO Yan-yan, LIU Qi-cheng. E-commerce Personalized Recommendation System Based on Multi-Agent.
- [6] Junnutula Meghanath Reddy, Texas A&M University College Station, Texas. Online Study and Recommendation System.
- [7] K Qazanfari 1, A Youssef1, K Keane2 and J Nelson2 1 Department of computer science, George Washington

University, Washington, DC, USA 20052 2 Promantus Inc. Cary, NC, USA 27511. A Novel Recommendation System to Match College Events and Groups to Students.